

at least a first control electrode (2) for triggering the resonator (1) in a first drive direction, and

at least an other control electrode (4) for triggering the resonator in a second drive direction, and

said means for supplying control signals comprises a trigger circuit (6) for supplying control signals (S) to the first and the other control electrode,  
characterized in that

a regulating circuit (7) is provided for regulating the control signals (S),

first means for supplying a feedback signal (k) from the other control electrode (4) to the regulating circuit (7) when the resonator is not being triggered by said other control electrode and the resonator (1) is being triggered in the first drive direction by means of the first control electrode (2), and

second means for supplying the feedback signal (k) form the first control electrode (2) to the regulating circuit (7) when the resonator is not being triggered by the first control electrode and the resonator (1) is being triggered in the second drive direction by means of the other control electrode (4).

Page 2, rewrite the paragraph beginning at line 10 to read as follows:

In the one advantageous embodiment of the invention, as defined in claim 2, wherein the other control electrode is a third electrode (4), the piezoelectric resonator (1) comprises a first pair of control electrodes (2,3) for triggering the resonator in the first drive direction, and a second pair of control electrodes (4,5) for triggering the resonator in the second drive direction, the second pair of control electrodes (4,5) is designed for supplying a feedback signal (k) to the regulating circuit (7) when the resonator is not being triggered by the second pair of electrodes

and the resonator (1) is being triggered in the first drive direction by the first pair of control electrodes (2,3), and the first pair of control electrodes (2,3) is designed for supplying a feedback signal (k) to the regulating circuit (7) when the resonator is not being triggered by the first pair of electrodes and the resonator(1) is being triggered in the second drive direction by the second pair of control electrodes (4,5).

In this embodiment, a first and a second control electrode pair are provided for triggering the relevant drive directions. The active piezo volume, i.e. the volume lying below the control electrodes, should be as great as possible so as to obtain a high energy density and a maximum output power. The arrangement of the control electrodes in pairs renders possible a good space utilization on the surface of the piezoelectric resonator.

Page 2, rewrite the paragraph beginning at line 16 to read as follows:

The arrangement of the control electrodes in pairs is particularly favorable in the advantageous an embodiment of the invention as defined in claim 3 wherein the piezoelectric resonator (1) is substantially rectangular in shape, and one control electrode is provided in each quadrant of the substantially rectangular piezoelectric resonator (1). The substantially rectangular piezoelectric resonators are polarized in the thickness direction, and the oscillation modes are preferably stimulated by the D-31 piezo effect.

Page 2, rewrite the paragraph beginning at line 20 to read as follows:

The amplitude evaluation provided in the advantageous another embodiment of the invention as defined in claim 4 wherein the regulating circuit (7) is designed for evaluating the amplitude of the feedback signal (k), takes place preferably by means of an analog-digital converter. The control circuit compares either the

amplitude of the feedback signal with a programmable reference value or the amplitude of the feedback signal with the amplitude of the control signal, and derives the regulating signal therefrom.

Page 2, rewrite the paragraph beginning at line 25 to read as follows:

In another ~~The advantageous embodiment of the invention, as defined in claim 5~~ the regulating circuit (7) is designed for evaluating the phase difference between the control signal (s) and the feedback signal (k) by means of a phase control (PLL) circuit. This embodiment can be realized in a particularly simple and inexpensive manner, because no analog-digital converter is required.

Page 2, rewrite the paragraph beginning at line 28 to read as follows:

The regulating circuit (7) is designed for regulating the frequency of the control signal (s). Such ~~The frequency regulation of the control signal in the advantageous embodiment of the invention as defined in claim 6~~ renders it possible to operate the piezoelectric resonator continuously with the highest possible performance.

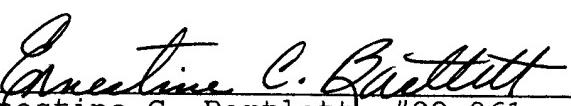
Page 2, rewrite the paragraph beginning at line 31 to read as follows:

The regulating circuit (7) is also designed for regulating the amplitude of the control signal (s). This ~~The amplitude regulation as claimed in claim 7 has the advantage that the output power of the motor can be regulated thereby.~~

REMARKS

The revisions in this Amendment are proposed to eliminate references to claims in the disclosure and incorporate the claim disclosure into the specification. The proposed amendments are formal in nature, do not require a substantial amount of additional work on the part of the U.S. Patent Office, do not raise new issues and do not involve new matter. Accordingly, entry of the Amendment under the provisions of Rule 312 is believed to be proper and is respectfully solicited.

Respectfully submitted,

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